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REMARKABLE HABITS OF THE SAGE GROUSE

AS OBSERVED IN SOUTHEASTERN OREGON
IN MAY, 1918

BY R. BRUCE HORSFALL

With Illustrations Drawn from Life by the Author

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FIGURES

Fig. 69—Sage Grouse Displaying.....	<i>Frontispiece</i>
Figs. 70-75—Studies of Sage Grouse Dance.....	246-248
Filling pouch with air.....	246
Stiff-legged run after filling the pouch.	
Lifting pouch with the wings.....	247
Side view of lift of the pouch.	
Extreme of throw of the pouch.....	248
Slap down of pouch on the chest.	
Fig. 76—Sage Grouse (male) Neck Feathers.....	249

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Stealthily and carefully we picked our way along the mud-flat road to the high gate in the lava-rock ranch fence, and peered through the bars.

"There they are!" burst from our lips in an excited whisper, as we caught the glint of white spots a few hundred yards beyond.

Cautiously we clambered over the irregular loose rocks and, like Indians on the warpath, crawled, squirmed and wriggled our way to a low outcropping of volcanic rock. From this vantage point we had an unobstructed view of the broad and bare flood-plain before us.

Cramped and strained in every muscle and bone, we remained hidden among those rocks till supper time, loath to leave the wonderful sight.

In the open at intervals of from twenty-five to fifty feet were sixty magnificent sage cocks strutting around with puffed-out chests and tails spread like miniature turkey gobblers, making noises for all the world like the popping of corks on the pier at Atlantic City, a sound which took me back in memory to the hotel in Colombo, Ceylon, where a hundred guests were served soda water at every meal, and the bottles were always opened at the tables.

Evidently these rocks had been a favorite place for Indians in years gone by, for all about us in the sand were obsidian chips and charcoal, with bits of arrow and spear heads. We afterwards picked up many perfect specimens on the open flat.

Here the Klamath Indian had lurked at evening to secure, with his twanging bow and bits of flying glass, a sage cock for the morrow's dinner, making arrow heads in the middle of the day when no birds were about. To the Indian a strutting sage cock was but an easy mark and a quick lunch. His stolid nature probably did not marvel at the wondrous performance, and no question entered his mind as to how and why.

To us, however, it was a sight which satisfied a great hunger; not the hunger of the body, but of the mind. We had spent days and nights in travel to see that phase of nature, to gain that scrap of knowledge; and we feasted to a great content, though many questions remain unsatisfied as to the how and the why.

The opportunity for these observations had come after two years' delay, and we were accordingly appreciative to the utmost.

In the summer of 1915, we had been viewing the Klamath Lake Pelican Colonies with the game warden, Mr. J. J. Turber, and had gone on to Laird's Landing, at the foot of the lake, to remain over night. While we were there Mr. Laird told us of sage grouse coming down on the flat at the eastern end of the pasture every spring to do their courting, but at that date, May 31st, they had stopped for the season.

It was now May, 1917, and we were to have our opportunity to observe and picture the birds in action.

Mr. Turber had brought William L. Furley, Stanley G. Jewett and the writer from Klamath Falls to Mr. Laird's place. It was afternoon when we rounded the lower end of the lake, and a few grouse were on the open alkali flat. We cached our camera and blind, and went on to the house to arrange for beds and board, leaving as soon as possible for our first close view of the birds. After supper that evening we set up our blind near the grassy slope reaching from the sage-covered hill at the eastern side of "the wash."

The waters that had formed this flood plain came down from the forest-capped Van Brimmer mountain away off to the south. Westward of this wash lay hillocks and ridges of dark lava rock. About eight level acres, near the shore of the lake, were bare of vegetation, and it was there that the sage cocks came from miles around to dance and strut—and "plop."

The strut was made up of four movements. First, the filling of the air pouch, accompanied by a grunting sound; second, a short stiff-legged run in which neither pouch nor wings touched the ground; third, the bird stopped suddenly, spread his tail as it raised to the perpendicular, threw back his head and with a forward movement of the wings pushed the air-filled pouch well up on the chest; fourth, there was a sudden upward throw, followed by a more vigorous and snappy toss, and the tightened pouch came down again on the extended chest with a rubbery "plop." This plop was repeated three times, then the bird eased down for another rumbling gurgle and another run.

Mr. Laird assured us that these antics take place from early March till the first of June; in fact, through the mating season. However, it was evident that this was not a courting action; because when in the course of the morning or evening performance, two or three hens meandered through the throng no notice whatever was taken of them. A real courting performance of a different character may take place in the daytime, far from the watering place, on the sage covered hills.

Each bird appears to have a private spot on which no other dares to trespass. In reaching those proprietary spots, collisions sometimes occurred, and quiet cock-fights took place much after the manner of China pheasants. With rump feathers erect, lowered heads and tails, and dragging pouches, the birds sidled around and struck with their wings; all the while scolding in a trumpeting, gurgling grunt, as the owner actually pushed the intruder off his domain. A few feet one way or another, the belligerents would separate and go on plopping as before.

Some birds began to perform well up in the sage brush, and plopped all the way out to the dancing spot; others walked quietly into their respective claims before beginning to show off.

An examination of the pouch of the sage grouse discloses a peculiar development. In front are two yellowish-green bare spots separated and surrounded by short stiff feathers, shortest and stiffest immediately surrounding the bare area. Probably it is these spots which make the sounding plop, after the manner of a wet drum-head. In the fall, when new, these feathers are soft and exceedingly friable, and by the time the birds are ready for strutting, have broken away to stiff, sharp bristles

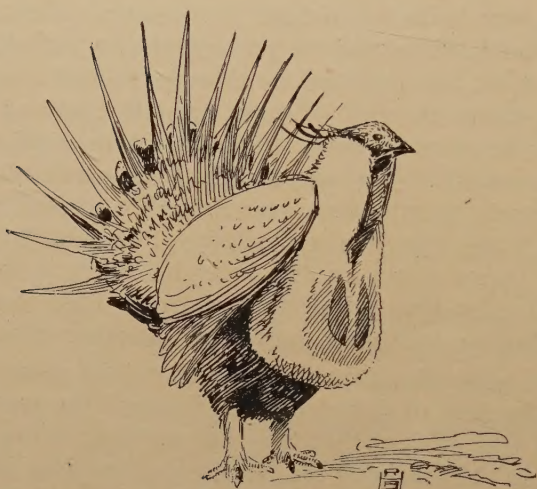


FIG. 70. FILLING POUCH WITH AIR

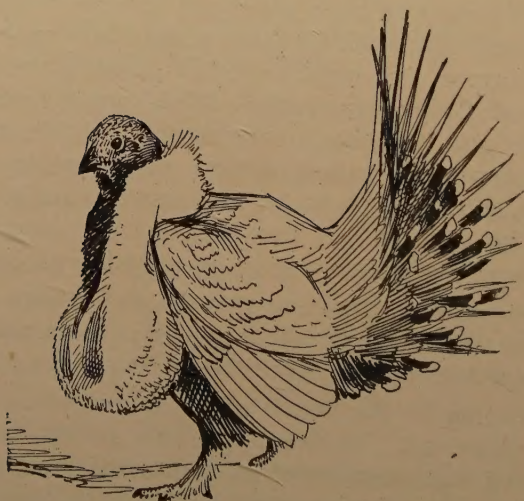


FIG. 71. STIFF-LEGGED RUN AFTER FILLING THE POUCH

STUDIES FROM LIFE OF SAGE GROUSE DANCE
Pen Drawings by R. Bruce Horsfall

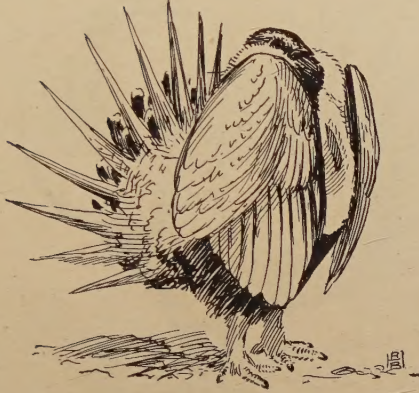


FIG. 72. LIFTING POUCH WITH THE WINGS

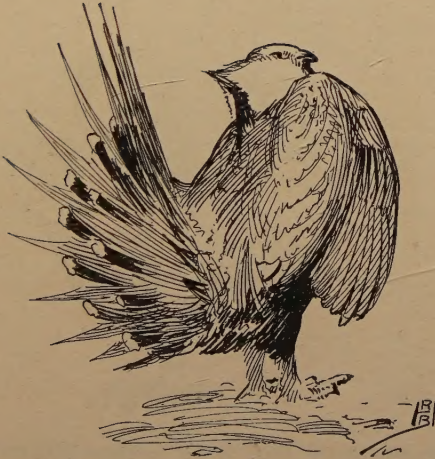


FIG. 73. SIDE VIEW OF LIFT OF THE POUCH

STUDIES FROM LIFE OF SAGE GROUSE DANCE
Pen Drawings by R. Bruce Horsfall

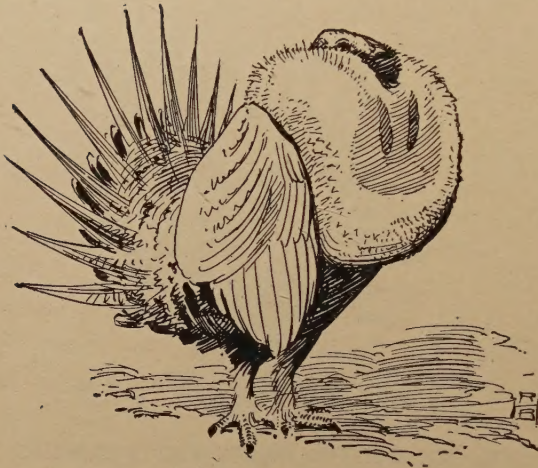


FIG. 74. EXTREME OF THROW OF THE POUCH

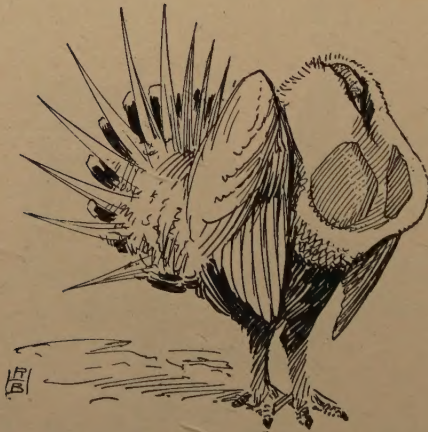


FIG. 75. SLAP DOWN OF POUCH ON CHEST SHOWING DISTENDED BARE SPOTS

STUDIES FROM LIFE OF SAGE GROUSE DANCE
Pen Drawings by R. Bruce Horsfall

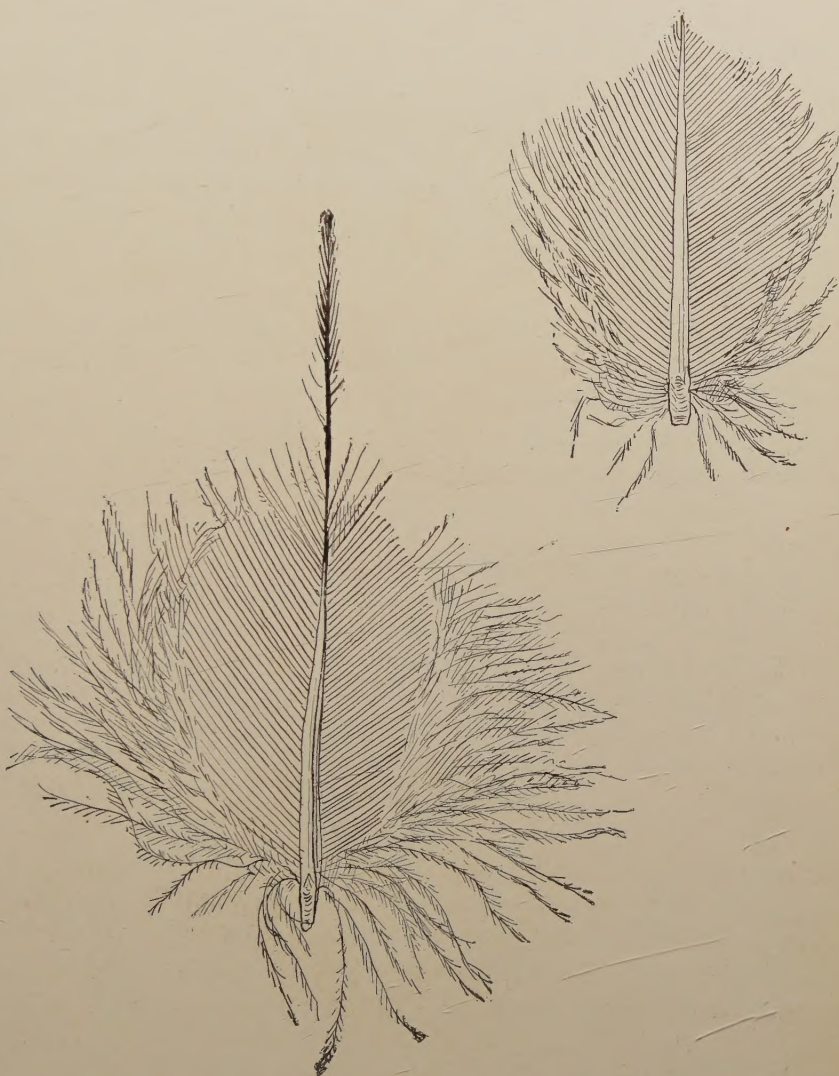


FIG. 76. SAGE GROUSE (MALE) NECK FEATHERS

September feather of loose structure which accounts for the wear on the spring feather. *Upper*—Taken from near bare spots on the pouch. *Lower*—Feather from breast beneath pouch

Pen Drawings by R. Bruce Horsfall

which will in no way interfere with the vigor of the snap, as soft feathers would do.

The morning after our arrival, the 11th of May, no birds came near enough to the blind for photographing. At nine o'clock it began to rain, and we spent the remainder of the morning searching for nests on the adjacent hillside. We found two from which the young had hatched, and one that had been rifled of its contents, probably by a coyote. In the afternoon the birds came in too late for pictures.

On May 11, no birds came near the blind, so we moved it to another spot. The afternoon was windy and stormy, and only a few birds came in at four o'clock.

On the 13th of May, we arose at three A. M. and after a hurried breakfast, stumbled and wobbled along the ruts of the road. No wind was stirring; which was a very unusual thing for this high plateau region. A heavy cloud hung over us, as only clouds in an arid region can hang, black as night, but the faint yellowish light of dawn was slowly brightening as we crept into the blind, at four o'clock. Dark as it was, a few birds were already there, and by five-fifteen we were able to make the first exposure. As usual, there were about sixty birds in the field. Actual counts of birds within our range of vision at various times were 51, 52, 51 and 54. By seven o'clock all had left for the sage-brush hills; but we had had several birds within thirty feet of us most of the time.

We returned to the blind at 4:15 A. M. A few birds were on the shore when we arrived and by seven o'clock, the usual time for the birds to scatter, we had secured moving and still pictures of every action from birds within twenty-five feet of us.

As we left, a lone coyote yapped to us a long farewell.



FIG. 77. GAME COCK, SHOWING HACKLE IN ECLIPSE



FIG. 78. Left: RED JUNGLE FOWL (*Gallus gallus*) SHOWING HACKLE IN ECLIPSE
Right: RED JUNGLE FOWL (*Gallus gallus*) SHOWING FULL HACKLE